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**PROJECT OVERVIEW REPORT**

1. UTC Identifying Number
   69A3551847102

2. Center Identifying Number
   CAIT-UTC-REG24

3. Project Title
   Application of Advanced Analytic and Risk Techniques to Railroad Operations Safety and Management

4. Principal Investigator & Contact Information
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5. Rutgers/CAIT Project Manager
   Patrick Szary, Ph.D.

6. Customer Principal
   Jason Lamb, General Manager
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7. Project Description
   The fundamental problem with the amounts of data collected by railroads is that they have generally lacked tools and the capability to analyze these data to develop predictive models to improve decisions regarding maintenance, operations and capital investments that improve safety, service and, ultimately, overall profitability. The primary goal of this project is to develop a prototype system that complements and improves the current tools and Decision Support Systems (DSS) used by the cooperating railroads.

8. Implementation of Research Outcomes (or why not implemented)
   The intended outcome of the project is to develop a DSS and dashboard prototype system to support short line railroad in prioritizing maintenance activities, operational decisions and investment decisions.

9. Impacts/Benefits of Implementation (actual, not anticipated)
   To Be Determined

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10. Dates and Budget
    Start date: 11/1/2019
    End date: 03/31/2021
    UTC (CAIT) Dollars: $40,000
    Cost Sharing: $0
    Total Dollars: $40,000

11. Keywords
    Decision support systems (DSS), data visualization, text-mining, railroad AI use, short line railroad maintenance, operations and investment decisions

12. Web Links (Reports and Project Website)

    https://cait.rutgers.edu/research/application-of-advanced-analytic-and-risk-techniques-to-railroad-operations-safety-and-management/